

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A mobile platform, comprising:

a volume adapted to contain a first, a second, and a third object;
a primary air conditioning system adapted to compress and cool a ~~first~~ quantity of outside air, the air conditioning system further adapted to pressurize the volume therewith whereby so that the ~~first~~ quantity of outside air becomes a ~~first~~ quantity of inside air, and the air conditioning system further adapted to ventilate the ~~first~~ object with the ~~first~~ quantity of inside air;

an exhaust adapted to exhaust a portion of the quantity of inside air; and
a cooler adapted to cool a coolant the portion of the quantity of inside air
and to use the portion of the quantity of inside air further adapted to cool the second
and third objects with the coolant.

2. (Currently Amended) The mobile platform according to claim 1, the first object to be being a passenger.

3. (Currently Amended) The mobile platform according to claim 1, the second object to be selected from the group consisting of a cargo compartment, a piece component of electronic equipment, and a galley refrigerator.

4. (Cancelled)

5. (Currently Amended) The mobile platform according to claim 1, the ~~coolant to be cooler comprising a coolant selected from the group consisting of~~ polyalphaolefin, propylene glycol, and water.

6. (Previously Presented) The mobile platform according to claim 1, the primary air conditioning system further comprising an air cycle system and a turbine expander.

7. (Currently Amended) An aircraft, comprising:
an internal volume adapted to contain a plurality of heat generating loads;
a compressor adapted to compress outside air;
a cooler adapted to cool the compressed outside air whereby to turn the cooled compressed outside air becomes into inside air, the inside air adapted to pressurize the volume;
a centralized thermal management system, the thermal management system adapted to provide a fluid the inside air to a first one of the plurality of heat generating loads, the thermal management system further adapted to exhaust a portion of the inside air from the first heat generating load, cool the portion of the inside air, and supply the portion of the inside air to at least a second one of the plurality of heat generating loads to control the temperature of the second heat generating load, the

temperature of the second heat generating load being controlled solely by the portion of
the inside air, whereby the heat loads will be temperature controlled by the fluid.

8. (Currently Amended) The aircraft according to claim 7, the volume further adapted to contain a passenger, the inside air to at least centralized thermal management system adapted to ventilate the passenger with the inside air.

9. (Currently Amended) The aircraft according to claim 7, the plurality of heat generating loads to include one of a piece of cargo, a piece of electronic equipment, and a galley refrigerator.

10. (Cancelled)

11. (Currently Amended) The aircraft according to claim 7, the fluid to be centralized thermal management system comprising a coolant selected from the group consisting of polyalphaolefin, propylene glycol, and water.

12. (Currently Amended) The aircraft according to claim 47, the cooler further comprising an air cycle system and a turbine expander.

13. (Currently Amended) A method of managing thermal loads on an aircraft comprising:

compressing a first quantity of outside air;

cooling the ~~first~~ quantity of outside air to form a quantity of inside air;
~~exhausting a portion of the inside air;~~
ventilating a first object in a pressurized volume of the aircraft with the
quantity of inside air;
exhausting a portion of the quantity of inside air from the first object;
cooling a fluid the portion of the quantity of inside air; and
cooling a second object in the pressurized volume solely with the fluid
portion of the quantity of inside air; and
~~saving energy by allowing a second quantity of outside air to remain~~
~~outside air.~~

14. (Currently Amended) The method according to claim 13, the first object ~~to be comprising~~ a passenger.

15. (Currently Amended) The method according to claim 13, wherein the second object ~~to-be-is selected~~ from the group consisting of a cargo compartment, a piece of electronic equipment, and a galley refrigerator.

16. (Cancelled)

17. (Currently Amended) The method according to claim 13, wherein the portion of the quantity of inside air is cooled with a coolant ~~the fluid to be selected from~~ the group consisting of polyalphaolefin, propylene glycol, and water.

18. (Currently Amended) The method according to claim 13, the cooling of the first quantity of outside air to further comprise:

using ram air to cool the first quantity of outside air; and
expanding the first quantity of outside air.

19. (Currently Amended) A method of designing an aircraft air conditioning system comprising:

including an outside air supply and a supplemental cooling unit in an architecture of the aircraft air conditioning system;
designing the outside air supply to compress outside air to form a quantity of inside air that pressurizes a pressurize an interior volume of within the aircraft with inside air, the inside air to and ventilates ventilate at least a first portion of the pressurized volume;

designing the supplemental cooling unit to control to exhaust a portion of the inside air away from the first portion of the pressurized volume and control the temperature of an object in a second portion of the pressurized interior volume of the aircraft, the temperature of the object being controlled solely with the portion of the inside air exhausted away from the first portion of the pressurized volume; and

sizing the outside air supply based on upon the including of the supplemental cooling unit in the aircraft air conditioning system architecture and further based upon using the exhausted portion of the inside air to control the temperature of the object in the second portion of the pressurized volume of the aircraft.

20. (Currently Amended) The method according to claim 19, further comprising including an inside air recirculation line to the supplemental cooling unit to enable whereby the supplemental cooling unit to control the temperature of the object in the second portion of the pressurized volume with the recirculation air.

21. (Original) The method according to claim 19, further comprising including a central coolant loop to the supplemental cooling unit whereby to enable the supplemental cooling unit to control the temperature of the object in the pressurized volume with a coolant of the central coolant loop.